Business Summary Report: Predictive Insights for Collections Strategy

# 1. Summary of Predictive Insights

Briefly restate your model’s findings from Task 2. Focus on high-risk segments, key predictors of delinquency (e.g., missed payments, credit utilization), and any meaningful patterns the Collections team should be aware of.  
  
Tip: Use 2–3 bullet points or short paragraphs. Refer to the dataset and insights you uncovered.

Optional: Include a Key Insights Summary Table (you may create this in Excel or insert manually).

|  |  |  |  |
| --- | --- | --- | --- |
| Key Insight | Customer Segment | Influencing Variables | Potential Impact |
| [Insert key insight from your model] | [Describe the customer segment this insight applies to] | [List the variables that contributed to this insight] | [Describe what the business could do with this insight] |

# 2. Recommendation Framework

Based on one of your model’s insights, outline your recommended intervention. Your recommendation should follow a SMART approach (Specific, Measurable, Actionable, Relevant, Time-bound).

Use the following subheadings to guide your structure:

* Restated Insight:
* Proposed Recommendation:
* Specific:
* Measurable:
* Actionable:
* Relevant:
* Time-bound:
* Justification and Business Rationale:

# 3. Ethical and Responsible AI Considerations

Reflect on the fairness, transparency, and impact of your model and recommendation.  
  
Include a brief discussion of any relevant ethical considerations, such as:

* Potential for bias or unfair treatment of certain customer groups (Provide specific examples related to your analysis).
* Explainability – how easy it is to communicate why the model makes its predictions.
* Whether the recommendation supports responsible financial decision-making.
* Other ethical principles considered (e.g., transparency, accountability, data privacy).

Keep your report under two pages. Write in plain, professional language. Use headings, bullet points, or short paragraphs to make it easy for the reader to follow.

## 1. Summary of Predictive Insights

Our predictive model analyzed customer financial behavior and demographic attributes to identify key indicators of delinquency. Based on our EDA and model results, we highlight the following:

* Top 3 Risk Factors:
* High Credit Utilization Ratio (>80% of credit limit)
* Recent Missed Payments (especially within the last 3 months)
* Low Annual Income (< ₹3L) and High Monthly Debt
* High-Risk Segments:
* Customers under 30 years of age with low income and high credit utilization
* Customers with recent missed EMI payments (1–3 months) and more than 3 active loans
* Individuals residing in Tier-3 cities with inconsistent payment histories

Key Insights Summary Table:

|  |  |  |  |
| --- | --- | --- | --- |
| Key Insight | Customer Segment | Influencing Variables | Potential Impact |
| High credit utilization leads to delinquency | Low-income, high-utilization, multi-loan customers | Credit Utilization, Monthly Debt, Income | Targeted credit limit adjustments or counseling |
| Recent missed payments raise risk sharply | Customers missing EMI in last 3 months | Payment History, Active Loans | Proactive outreach can reduce churn |
| Young borrowers face higher risk | Customers < 30 years, Tier-3 cities | Age, Income, Delinquency History | Tailored financial education and monitoring |

## 2. Recommendation Framework

* Restated Insight:

Customers with high credit utilization (over 80%) are significantly more likely to default within the next quarter.

* Proposed Recommendation (SMART Goal):
* Specific: Implement a targeted campaign to reduce credit utilization by offering flexible repayment plans to customers exceeding 80% utilization.
* Measurable: Reduce average utilization rate among targeted customers by 15% and delinquency rate by 10% within 6 months.
* Actionable: Use model insights to generate a customer list and launch repayment plan offers through SMS, email, and in-app notifications.
* Relevant: Aligns with Geldium’s mission to manage risk while supporting responsible lending practices.
* Time-bound: Execute the pilot intervention over the next 90 days with results reviewed at the end of Q3.

Justification and Business Rationale:

Reducing credit utilization has a direct impact on delinquency. By offering support to high-utilization borrowers, Geldium can proactively prevent defaults, retain customers, and promote healthier credit behavior—all while aligning with regulatory compliance and ethical lending standards.

## 3. Ethical and Responsible AI Considerations

Fairness Risks:

1. Income Bias: The model may unintentionally penalize low-income individuals. Mitigation: Monitor outcomes by income bracket and provide inclusive financial education outreach.

2. Geographic Disparities: Residents from rural or Tier-3 regions may face biased predictions. Mitigation: Apply fairness-aware algorithms and ensure interventions support rather than exclude.

Explainability:

Use SHAP values and simple visualizations (like bar charts or scorecards) to show which variables influence predictions. For non-technical stakeholders, explain, e.g., “This customer’s high credit usage and recent missed payments increase their risk score.”

Responsible AI:

The approach respects transparency and accountability by using explainable models (e.g., decision trees), excluding sensitive attributes like gender, and ensuring data privacy. The recommendations focus on prevention and support—not punitive action.